ABSTRACT
        This report summarizes information on dropouts in
Delaware for the school year 1988-1989. It indicates that 2,034
students in grades 9 through 12 dropped out of school, representing
an annual dropout rate of 7.3%. Statistics from past years are
included to chart trends and it is shown that the annual dropout rate
has remained relatively steady over the past 3 years, with a slight
downward trend during the last decade. A section on methodology
discusses measurement and reporting of dropout information. The
report presents a breakdown of the state's dropouts by grade and
district and includes countywide patterns in dropouts. A table
grouping dropout data by age and grade simultaneously shows that most
dropouts left school at ages 16 and 17 and most were overage for
grade placement. Examination of the state's dropouts by race shows
that the annual dropout rate for Blacks was 1.7 times the rate for
whites and the rate for Hispanics was 2.3 times the rate for Whites.
Reasons for dropping out are classified into three broad categories:
school, economic, and personal. A section on the academic performance
of dropouts presents data which suggest that significant numbers of
dropouts are capable of satisfactory levels of academic achievement.
The report concludes by emphasizing Delaware's commitment to
understand and deal with the conditions that lead to dropping out of
school. (NB)

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DELAWARE'S DROPOUTS
1988-1989

STATE OF   DELAWARE

DEPARTMENT OF PUBLIC INSTRUCTION

DOVER, DELAWARE 19903

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DELAWARE'S DROPOUTS 1988-1989

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November 1989

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DELAWARE'S DROPOUTS, 1988-1989

INTRODUCTION

Dropping out of high school continues to be seen as a serious educational and social problem. Individually, the consequences of failure to complete high school typically include limited economic and psychological well-being that persists throughout adulthood. The social consequences, in terms of lowered productivity and increased dependence on social support programs, may run into the billions of dollars.

Determining the extent and character of the State's dropout problem is a necessary step in a complete program of identification, intervention, and recovery of students who are educationally at-risk. The Research and Evaluation Division of the Delaware Department of Public Instruction annually collects information from the State's secondary schools concerning students who drop out of school. This report summarizes this information for the school year 1988-1989.

STATE SUMMARY INFORMATION

Last year, 2,034 students in Grades 9-12 left school, out of an enrollment of 27,792 students, which represents an annual dropout rate of 7.3%. Various characteristics of the State's dropouts are listed in Table 1.

TABLE 1.

DELAWARE DROPOUT RATES, 1988-1989
Grades 9-12

(N=2,034)

	Annual Dropout Rate	Percent of All Dropouts
TOTAL	7.3 %	100.0 %
SEX		
Male	8.4	59.2
Female	6.1	40.8
RACE / ETHNICITY		
White/Other	6.1	61.1
Black	10.2	34.9
Hispanic	14.2	4.0
AGE		
14-15	1.2	5.9
16-17	8.4	60.3
18-19	20.7	32.1
20 +	40.7	1.6

Source: Delaware Department of Public Instruction
Research and Evaluation Division

Several points are evident in this table:

1. The proportion of dropouts who are male outnumbers the proportion who are female, about 60% to 40%.

2. The annual dropout rate for Blacks is about 1.7 times the rate for Whites/Others.

3. The annual dropout rate for Hispanics is about 2.3 times the rate for Whites/Others.

4. While the annual dropout rate for Hispanics is larger than the rates of the other racial/ethnic groups, Hispanics make up a small proportion of the State's total dropouts, because the Hispanic student population is relatively small (2.1% of the students in Grades 9-12). On the other hand, Blacks comprise a disproportionate share of the State's dropouts, considering their representation in the student population (25.1% of the students in Grades 9-12).

5. Most of the State's dropouts leave school when they are 16-17 years old. This is probably mainly due to the fact that school attendance in Delaware is mandatory up to age 16. A substantial proportion drop out at ages 18-19, suggesting that many dropouts were overage for their grade placement, since the typical age for 12th graders is 17.

Another view of the overall dropout picture in Delaware is provided in Figure 1, which shows the State's annual dropout rates for the school years 1979-80 to 1988-89. This plot shows that the rate has remained relatively steady over the past three years, within the context of a slight overall downward trend throughout the last decade.

FIGURE 1.

DELAWARE'S ANNUAL DROPOUT RATE (1980-1989)
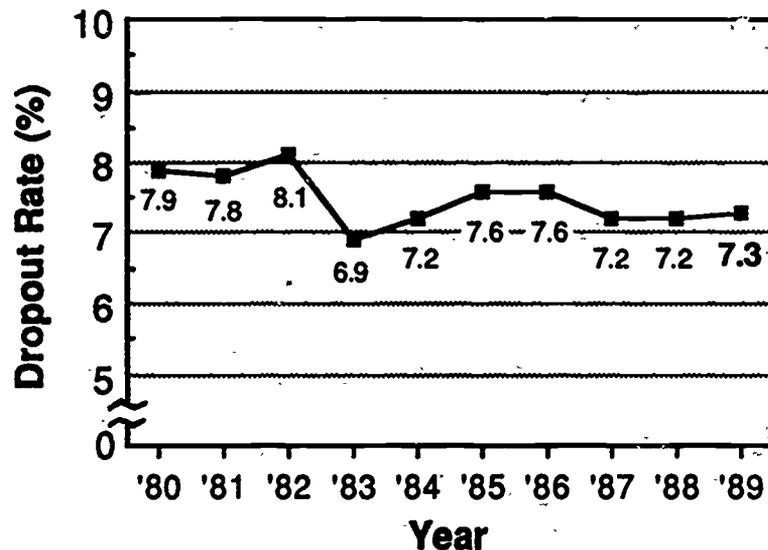
Source: Department of Public Instruction
Research and Evaluation Division

What follows are a few brief remarks concerning methodology which are helpful in interpreting the data. Following this, we will proceed to discuss the results in greater detail.

HOW ARE THE STATE'S DROPOUTS COUNTED AND REPORTED?

There are two sorts of issues to consider when discussing dropout statistics: measurement and reporting.

1. Measurement. There are a great variety of methods for quantifying dropout levels currently in use at the national, state, and local levels (see, e.g., Government Accounting Office, 1986; Williams, 1987; Wittebols, 1986). This lack of standardization makes comparisons with other data sources problematic. The best course to take at present is to be explicit about one's methods, so that the data can be accurately evaluated in context.

The definition of a dropout used in the Delaware data collection is as follows:

A dropout is a student who is enrolled in a district in the year previous to measurement and leaves before the end of the currently measured year--and for whom the district has no record of death, graduation, or transfer to another district.

This definition, which is widely used by state school systems, has the advantage of being inexpensive and practical for district data collectors. The chief disadvantage is uncertainty regarding unreported transfers and alternative certification outside the school system, leading to the potential for overcounting of dropouts. To the extent that these factors vary across districts and schools, comparisons between schools and districts are affected.

Several criteria for inclusion in the dropout figures should be noted:

(a). Grades included are 9-12.
(b). Summer, 1988 dropouts are included (i.e., those expected to enroll in grades 9-12 in the fall).
(c). Special schools are included.
(d). Special students are included.
(e). In the Kent and Sussex County Vocational-Technical Districts, only the dropouts from the Intensive Learning Center programs are included. The regular part-time vocational students in these schools are listed within their home school districts.

Enrollment figures used as the bases for rate computations were obtained from the September 30, 1988 enrollment count.

2. Reporting. Two ways of expressing dropout proportions are used throughout this report, and they should be carefully distinguished:

The Annual Dropout Rate is a ratio of the number of dropouts in a given category (e.g., a grade or racial/ethnic group) to the total number of enrolled students in that category.

The Percent of All Dropouts is a ratio of the number of dropouts in a given category to the total number of dropouts summed over the set of categories being considered (e.g., the number of 9th grade dropouts as a proportion of the number of dropouts in all four grades).

7

WHO ARE THE STATE'S DROPOUTS (BY GRADE)?

A breakdown of the State's dropouts by grade and district is presented in Table 2 (on next page). This table shows that, overall, the annual dropout rate is highest among 10th graders and lowest among 12th graders. Local variations in this pattern are notable, however. For example, in two of the districts in Sussex County, the lowest dropout levels are found among 9th graders (interestingly, these are the two districts in the State whose high schools consist of Grades 10-12 rather than 9-12). On the other hand, in both the Delmar and Lake Forest districts, approximately half of the districts' dropouts occur in the 9th grade.

Countywide patterns are perhaps more easily understood by viewing Figure 2 (see below). In this chart, it appears that the highest proportion of dropouts are 9th graders, followed by 10th, 11th, and 12th graders in decreasing proportions, in both New Castle and Kent Counties. However, in Sussex County, the lowest proportion of dropouts are 9th graders, whereas the proportion jumps to a high of 35% at Grade 10, followed by decreasing proportions of the remaining grades. Again, this difference may be related to differences in grade structure of the schools in the three counties. The high schools in both New Castle and Kent Counties consist exclusively of grades 9-12, whereas the grade groupings in Sussex County upper-level schools are quite variable-- being either 7-12, 9-12, or 10-12. The relatively low 9th grade dropout levels in Cape Henlopen and Delmar may be chiefly responsible for the difference in aggregate Sussex County figures, relative to New Castle and Kent Counties.

FIGURE 2.

PERCENT OF COUNTYWIDE DROPOUTS BY GRADE
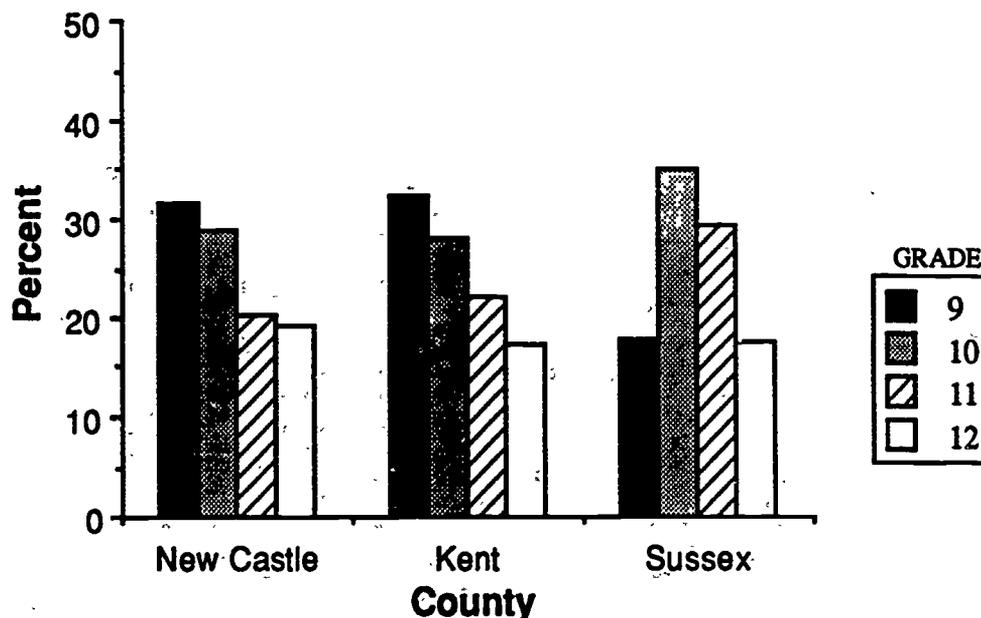
NOTE: This figure is interpreted as follows: Of the total number of dropouts in New Castle County, 32% of them were 9th graders, 28% were 10th graders, and so on.

Source: Department of Public Instruction, Research and Evaluation Division

TABLE 2.

DELAWARE DROPOUTS 1988-1989
BY GRADE AND DISTRICT
Grades 9-12

DISTRICT	NO. OF DROPOUTS	ANNUAL DROPOUT RATE (%)					PERCENT OF ALL DROPOUTS (%)				
		9	10	11	12	TOTAL	9	10	11	12	TOTAL
REGULAR											
Appoquinimink	36	6.6	5.6	5.8	9.5	7.0	27.8	19.4	16.7	36.1	100.0
Brandywine	166	5.0	5.4	5.4	4.3	5.0	26.5	28.3	24.7	20.5	100.0
Christina	368	10.7	11.1	8.5	5.9	9.1	33.4	30.2	20.9	15.5	100.0
Colonial	220	13.5	11.1	6.8	8.6	10.4	38.6	28.6	13.2	19.5	100.0
Red Clay	317	11.9	11.2	7.6	5.3	9.2	36.3	31.5	18.6	13.6	100.0
Caesar Rodney	114	7.4	6.9	6.9	5.5	6.7	33.3	21.1	24.6	21.1	100.0
Capital	159	8.7	11.6	9.0	7.9	9.3	28.9	33.3	18.9	18.9	100.0
Lake Forest	78	13.3	6.9	8.1	4.9	8.7	47.4	24.4	16.7	11.5	100.0
Milford	43	4.8	3.4	7.5	2.0	4.4	27.9	18.6	41.9	11.6	100.0
Smyrna	51	3.6	11.2	5.8	6.8	6.6	17.6	41.2	19.6	21.6	100.0
Cape Henlopen	54	1.3	8.5	6.8	6.7	5.8	5.6	38.9	27.8	27.8	100.0
Delmar	22	11.8	5.4	3.5	2.1	5.7	50.0	27.3	13.6	9.1	100.0
Indian River	133	1.6	11.1	10.9	5.2	7.2	5.3	38.3	37.6	18.8	100.0
Laurel	52	10.8	14.2	10.5	5.7	10.5	26.9	34.6	26.9	11.5	100.0
Seaford	65	6.6	9.8	6.5	5.6	7.2	26.2	35.4	21.5	16.9	100.0
Woodbridge	44	12.0	8.1	11.4	6.7	9.6	31.8	25.0	29.5	13.6	100.0
VOCATIONAL-TECHNICAL											
KC Vo-Tech (ILC)	11	28.6	25.0	33.3	0.0	24.4	54.5	27.3	18.2	0.0	100.0
NCC Vo-Tech	101	0.8	2.7	4.3	4.2	3.1	5.9	20.8	31.7	41.6	100.0
SC Vo-Tech (ILC)	0	0.0	0.0	0.0	0.0	0.0	---	---	---	---	----
TOTAL	2034	7.8	8.6	7.2	5.5	7.3	29.4	29.8	22.3	18.5	100.0

Notes: The dropout counts include students in grades 9-12 who left school between 7/88 and 6/89 (i.e., summer 1988 dropouts are included). Dropout rates are based on September 30, 1988 enrollment figures. Special students in both regular and special schools are included. The dropout rates for the Kent and Sussex County Vocational-Technical Districts include only the students in the Intensive Learning Center programs; regular vocational students are counted in their home school districts.

Source: Delaware Department of Public Instruction, Research and Evaluation Division.

9

The existence of dropout statistics computed at the district level may lead to inappropriate comparisons between districts with respect to the effectiveness of their educational activities. Such comparisons are inappropriate because different school systems serve different student populations, who may have differential tendencies to drop out of school. Thus, firm conclusions about the the school programs themselves are unwarranted. Nevertheless, dropout statistics computed at the district level are useful indices of the challenges which the various districts face.

Another characteristic of the dropout population is revealed by grouping the data by grade and age simultaneously. This age/grade data may be used to categorize dropouts as underage, overage, or at the appropriate age for grade placement, on the assumption that the appropriate ages for Grades 9, 10, 11, and 12 are 14, 15, 16, and 17 years, respectively. (Although some students could be up to a year older than these "appropriate" ages, if their initial school entry was waived for a year at age 5, this occurs relatively infrequently in the State). When this is done, the resulting analysis shows clearly that most dropouts are overage for grade placement (see Table 3). Overall, 90% of the dropouts are classified as overage. The proportion of dropouts who are overage decreases with increasing grade level, probably due to the attrition of so many overage dropouts in the earlier grades.

The significance of so many overage dropouts is this: overage grade placement is typically caused by grade retention. Grade retention, in turn, is a fairly well-documented indicator of risk for dropping out. Since grade retention is one factor which can be manipulated, it might pay to review grade retention policies and practices in the State. Those concerned with lowering the dropout rate might consider the social implications of retaining students. The damage to self-esteem may more than offset the benefits of improved basic skills.

TABLE 3.

PERCENTAGE OF DELAWARE DROPOUTS (1988-89): DROPOUTS IN EACH GRADE WHO ARE UNDERAGE, OVERAGE, OR AGE-APPROPRIATE FOR GRADE LEVEL

| | Grade | | | | |
	9	10	11	12	Overall
Overage	98.0%	96.5%	82.6%	76.9%	90.2%
Appropriate	1.8	3.1	17.2	21.5	9.0
Underage	0.2	0.3	0.2	1.6	0.5
Totals	100.0	100.0	100.0	100.0	100.0

Source: Delaware Department of Public Instruction
Research and Evaluation Division

10

WHO ARE THE STATE'S DROPOUTS (BY RACE)?

A breakdown of the State's dropouts by race and district is provided in Table 4 (on next page). Basically, the patterns revealed follow the demographics of the racial and ethnic groups in the State. That is, the proportions of dropouts who are either Black or Hispanic are highest in the New Castle County school districts, followed by the Kent and Sussex County districts, in that order--which parallels the distribution of racial/ethnic groups as a whole in the State. With respect to annual dropout rates, both the Black and Hispanic rates in the two northern counties are higher than the White rates, a pattern which is consistent with minority trends nationwide. In Sussex County, however, the annual dropout rate for Blacks in some districts is comparable to or lower than that for Whites.

The relative proportions of dropouts in the various racial/ethnic groups are also displayed in Figure 3, which aggregates the data by county.

FIGURE 3.

PERCENT OF COUNTYWIDE DROPOUTS
BY RACE
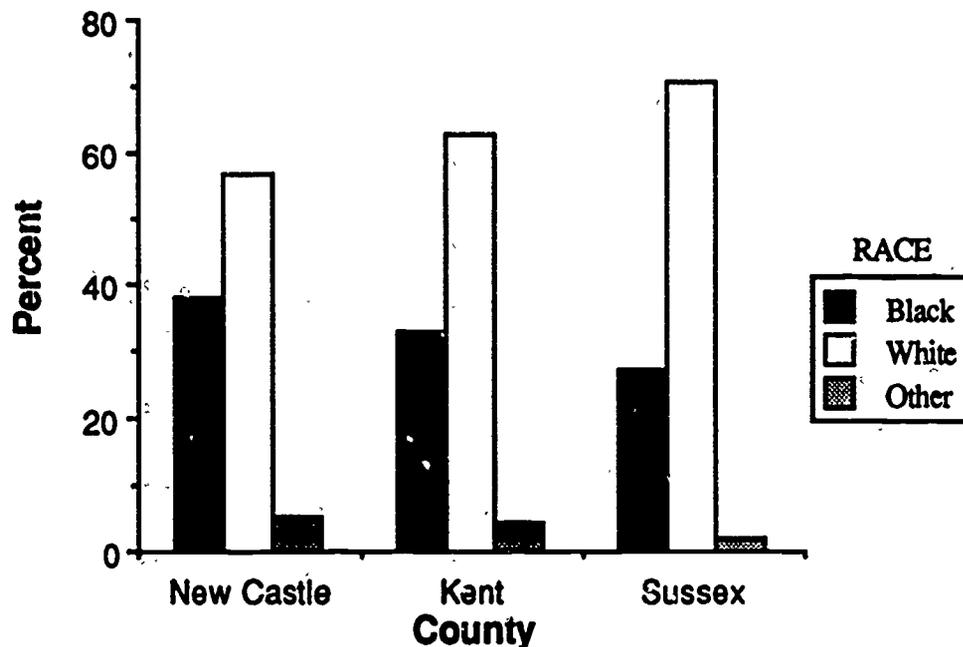
NOTE: This figure is interpreted as follows: Of the total number of dropouts in New Castle County, 38% of them were Black, 57% were White, and so on.

11

TABLE 4.

DELAWARE DROPOUTS 1988-1989
BY RACE AND DISTRICT
Grades 9-12

DISTRICT	NO. OF DROPOUTS	ANNUAL DROPOUT RATE (%)				PERCENT OF ALL DROPOUTS (%)			
		Black	Hispanic	White/ Other	TOTAL	Black	Hispanic	White/ Other	TOTAL
REGULAR									
Appoquinimink	36	5.1	---	7.3	7.0	11.1	C.0	88.9	100.0
Brandywine	166	9.0	0.0	3.9	5.0	42.2	0.0	57.8	100.0
Christina	368	14.8	9.8	7.4	9.1	37.8	2.4	59.8	100.0
Colonial	220	12.9	11.4	9.3	10.4	36.4	1.8	61.8	100.0
Red Clay	317	15.3	22.7	5.9	9.2	42.0	13.2	44.8	100.0
Caesar Rodney	114	8.8	11.1	6.0	6.7	27.2	4.4	68.4	100.0
Capital	159	14.5	17.9	6.6	9.3	49.7	3.1	47.2	100.0
Lake Forest	78	7.4	60.0	8.6	8.7	14.1	3.8	82.1	100.0
Milford	43	9.2	5.0	2.9	4.4	48.8	2.3	48.8	100.0
Smyrna	51	6.1	16.7	6.6	6.6	11.8	2.0	86.3	100.0
Cape Henlopen	54	5.7	11.1	5.8	5.8	27.8	1.9	70.4	100.0
Delmar	22	1.9	---	6.1	5.7	4.5	4.5	90.9	100.0
Indian River	133	8.1	0.0	7.0	7.2	27.1	0.0	72.9	100.0
Laurel	52	16.0	---	8.8	10.5	28.8	3.8	67.3	100.0
Seaford	65	6.7	33.3	7.2	7.2	23.1	1.5	75.4	100.0
Woodbridge	44	13.2	25.0	7.8	9.6	43.2	2.3	54.5	100.0
VOCATIONAL-TECHNICAL									
KC Vo-Tech (ILC)	11	6.3	33.3	34.6	24.4	9.1	9.1	81.8	100.0
NCC Vo-Tech	101	3.1	5.3	3.0	3.1	32.7	5.0	62.4	100.0
SC Vo-Tech (ILC)	0	0.0	0.0	0.0	0.0	---	---	---	---
TOTAL	2034	10.2	14.2	6.1	7.3	34.9	4.0	61.1	100.0

Note: The dropout counts include students in grades 9-12 who left school between 7/88 and 6/89 (i.e., summer 1988 dropouts are included). Dropout rates are based on September 30, 1988 enrollment figures. Special students in both regular and special schools are included. The dropout rates for the Kent and Sussex County Vocational-Technical Districts include only the students in the Intensive Learning Center programs; regular vocational students are counted in their home school districts. Missing entries in the "Hispanic" column under Annual Dropout Rate indicate that the district had a base Hispanic enrollment so low (2 or less) that calculation of the dropout rate was not meaningful.

Source: Delaware Department of Public Instruction, Research and Evaluation Division.

12

Figure 4 displays trends in the annual dropout rates for various racial/ethnic groups in the past decade. This plot shows that the rate for Blacks decreased in the early part of the 80's, leveled off in the middle of the decade, and has consistently increased for the last four years. The rate for Hispanics, which veered dramatically in the first half of the decade, has also seen a steady increase in the last five years. Much of the volatility in the Hispanic rate is probably attributable to the relatively low numbers of students involved, which increases the instability of the calculations. The rate for Whites/Others has remained fairly constant throughout the entire period.

FIGURE 4.

DELAWARE'S ANNUAL DROPOUT RATE BY RACE
(1980-1989)
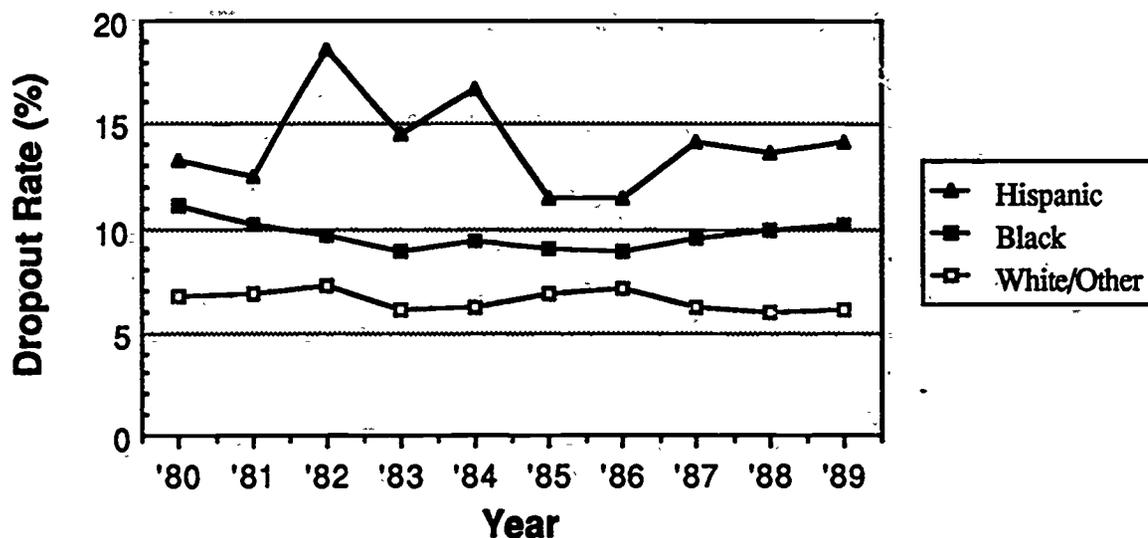
Source: Department of Public Instruction
Research and Evaluation Division

WHAT REASONS ARE GIVEN FOR DROPPING OUT?

Dropout data collectors, chiefly high school guidance counselors, were asked to solicit the reasons given by the students for dropping out. The data collection form distinguished three broad classes of reasons: School, Economic, and Personal. Data collectors were asked to record at least one "School" reason; optionally, a maximum of one response could be recorded in each of the other broad categories if additional information were available. Data on "School" reasons were provided for 1521 students (74.8% of the total dropouts). The results of this effort are displayed in Table 5.

13

TABLE 5.

**DELAWARE DROPOUTS (1988-89): REASONS REPORTED BY
SCHOOL OFFICIALS FOR EACH DROPOUT CASE**

Reason	Number of Responses	Percent of Category
School		
Academic	216	14.2%
Discipline	98	6.4
Poor Attendance	<u>1207</u>	<u>79.4</u>
Total	1521	100.0
Economic		
Desire to Work	405	87.3
Financial Response	20	4.3
Needed at Home	13	2.8
Other	<u>26</u>	<u>5.6</u>
Total	464	100.0
Personal		
Illness	6	3.0
Pregnant	54	26.6
Married	14	6.9
Care for Child	56	27.6
Other	<u>73</u>	<u>36.0</u>
Total	203	100.0

NOTE: One response was required in the "School" category. Optionally, a response in one or both of the categories "Economic" and "Personal could be supplied, if available.

Source: *Delaware Department of Public Instruction
Research and Evaluation Division*

HOW WELL DO DROPOUTS PERFORM ACADEMICALLY?

This year, a new effort was made learn something about the levels of academic performance achieved by the State's dropouts. For this purpose, the dropout data was linked to the database of standardized achievement test scores obtained by the Delaware Educational Assessment Program. Testing takes place annually for all students in Grades 1-8 and 11. During the relevant test years, the test in use was the Comprehensive Tests of Basic Skills. In order to maximize the match between the two databases, the most recently available test scores for each dropout were used, typically obtained when the students were in Grade 8 or 11.

It is a commonly held assumption that students who drop out are consistently among the State's lowest achieving students, but as the data presented in Table 6 show, this proves not to be the case. A substantial proportion (greater than 30%) of dropouts scored above the 50th percentile (as expressed in Normal Curve Equivalents). This result held for the Total Battery score, as well as the subscale scores of Total Reading, Total Language, and Total Math. When the results are scrutinized by grade level (not shown in Table 6), it is found that greater than 40% of the Grade 11 dropouts scored above the 50th percentile on all scales,

14

with a high of 47% scoring above this mark on Total Language and 43% on Total Math. The Grade 9 dropouts, on the other hand, yielded the lowest proportion of students scoring above the 50th percentile (24-30%).

To be fair, the distribution of scores evidenced by the dropouts is skewed toward the bottom end of the scale. Most of the dropouts scoring above the 50th percentile are clustered in the 3rd quartile (i.e., between the 50th and 75th percentiles), not the 4th or highest quartile. And at the bottom end of the scale, a large proportion of dropouts performed at the very worst levels of achievement on these tests. For example, 18% of all dropouts scored between the 1st and 5th percentiles on the Total Battery. With respect to grade comparisons, the lowest proportion of students (11%) performing this bad were again from the 11th grade.

The limitations of this data should also be noted. Test scores were not available for every dropout in the database; in fact, the number of successful matches (N = 682) represents 34% of the State's dropouts. This is much lower than the overall rate of test returns in the State (99%). Methodological problems might account for a small portion of this discrepancy, but a more likely explanation is that dropouts may be disproportionately represented among those tested who do not complete all of the subtests, due to irregular attendance patterns. If so, it may also be the case that many of the worst achieving students do not have test scores available (particularly for the aggregated scales, such as Total Battery). Thus, Table 6 may give an overly optimistic view of the academic achievement of the State's dropouts.

Nevertheless, it is still clear that significant numbers of dropouts are capable of satisfactory levels of academic achievement. Perhaps one firm conclusion that can be drawn from all this is that, for at least some early school leavers, poor academic performance is not the primary factor in their decision to drop out. This underscores the need to continue and enhance the State's committment to identify and help potential dropouts, so that they might remain in school until graduation, in order to help them reach their fullest potential.

TABLE 6

DELAWARE DROPOUTS (1988-89): PERCENTAGE OF TESTED DROPOUTS SCORING IN EACH QUARTILE ON THE COMPREHENSIVE TESTS OF BASIC SKILLS
(N=682 Dropouts)

| Score | Quartile | | | | Totals |
	(Lowest) Q1	Q2	Q3	(Highest) Q4	
Total Reading	23.3%	44.4%	28.6%	3.7%	100.0%
Total Language	18.8	44.4	30.5	6.3	100.0
Total Math	21.8	42.7	29.6	5.9	100.0
Total Battery	26.1	42.2	27.4	4.3	100.0

NOTE: Quartiles are based on the subscale scores expressed as Normal Curve Equivalents (NCE's). The most recently available test scores were used, typically obtained when the students were in 8th or 11th grade.

Source: Delaware Department of Public Instruction
Research and Evaluation Division

15

CONCLUSION

Concern over the problem of dropouts has been increasing among educators and policymakers in recent years (for a recent review, see Rumbarger, 1987). Several factors may be responsible for this. First, increased attention has been paid to developing a set of "indicators" for judging the performance of school systems, and dropout figures are seen as appropriate, in part, for measuring how well educational systems are doing their jobs. Second, it has been recognized that recent efforts at school reform, which often focus on raising academic standards and requirements, may be putting increased pressure on marginal students, making them more likely to drop out. Third, the proportion of students who are racial and ethnic minorities is increasing in public schools throughout the nation, and it is known that minority populations are at increased risk of dropping out, relative to the white population. Finally, most observers expect that the educational requirements of the workplace will increase in the future, putting those with limited educational skills at increased disadvantage.

The State of Delaware is committed to understanding and dealing with the conditions that lead to the decision to drop out of school prematurely. Furthermore, programs are available that provide opportunities for individuals to resume their education prior to dropping out, such as the James H. Groves Schools. The Research and Evaluation Division of the Department of Public Instruction will continue to suport these efforts by supplying timely, informative data on the State's dropout picture, and by working to improve and refine our data collection efforts to increase our understanding of dropouts.

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16